

Zh Eks i Teor Fiz VI, July 10, 1936 P. 1060

Comments on the Theory of Phosphorescence
by Blokhintsev

RT-673

NRL Translation 219

Zh Eksp. Teor. Fiz. Vol VI, No 10, 1936 P1062

Fluorescence Spectrum of
Anthracene and Phenanthrene Crystals
by Obreimov, Prukhot'ko, & Shabal'sas

pp. 1062-1074 - 21 pp.

NRL Translation 212

RT-727

J-5692

(NY-3320).

Recording of Electric Waves on Paper and Its
Foundation in Theory, by V. Arkad'yev, 26 pp.

RUSSIAN, per, Zhur Eksp'er i Teorst Fiz, Vol VII, No 1,
1937, pp 87-106.

JFRS 2315

Sci - Electronics
Mar 60

119,182

J-5692

(HY-3320).

Characteristics of Detectors for the Chemical
Recording of High Frequency Electric Fields on
Paper, by B. Arkad'yev, E. Chernyavskaya, 13 pp.

RUSSIAN, par, Zhur Eksp. i Teoret Fiz, Vol VII,
No 1, 1937, pp 107-113.

JPRS-2264

Sci - Electronics
Feb 60

108,560

(NY 4827)

The Transmission of Detonation Between Initiating
Substances. II. The Dependence of the
Probability of Transmission of Detonation on the
Distance Between the Charges and on the Area of
the Passive Charge, by A. F. Belyayev, E.
Raultovskaya, Yu. B. Kharaton, 11 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VII,
No 1, 1937, pp 191-197.

JPRS 7236

135,820

Sci - Phys

(NY-4827)

On the Transmission of Detonation Between Initiating
Explosive Substances. III. The Dimensions of
Particles Transmitting the Detonation, by A. F.
Belyayev, Yu. B. Khariton, 10 pp.

RUSSIAN, per, Zhur Ekspoz 1 Teoret Fiz, Vol VII,
No 1, 1937, pp 198-208.

JPRS 7218

Sci - Phys

135,834

Dec 60

Kinetic Equation in the Case of Coulomb
Interaction, by L. D. Landau, 9 pp.

RUSSIAN, per, Zhur Eksp. i Teoret Fiz, Vol VII,
No 2, 1937, pp 203-209. 9097694

OTB 43-11612
A.C.S.I.L. No 1222

NLI 1-1122

Sci - Phys

Mar 62

188,039

Dec 60

(NY 4827)

Induced Predissociation in the Visible Spectrum
of Bromine, by L. Avramenko, V. Kondrat'ev,
10 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VII,
No 2, 1937, pp 249-255.

JPRS 7237

Sci - Phys

135,821

Dec 60

(NY-4827)

The Absorption of Light by Gases During Low
Resolution Studies, by V. N. Kondrat'yev, 15 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VII,
No 2, 1937, pp 256-264.

JPRS 7216

Sci - Phys

135,838

Dec 60

The Influence of Deformation on the Diffusion of
Mercury Into Zinc, b M. A. Bol'shanina, V. A. Pavlov.

RUSSIAN, no per, Zhur Eksper i Teoret Fiz, Vol VII,
No 2, 1937, pp 318-323.

AEC Tr 559

15,886

Scientific - Physics

Aug 1951 CRB

Electron Gas in a Magnetic Field, by
Ye. M. Lifshits.
RUSSIAN, per, Zhur Eksper Teor Fiz, Vol VII,
1937, pp 390-400.
*NASA TT 6-479

Sci - Phys
May 67

Zh Ek i Teoret Fiz Vol 7, pp 477-82, 1937

Intensities of electronic spectra of diatomic molecules,
by V. Kondrat'ev

AEC/ BNL/ Tr 122

V. Kondrat'ev

(NY-4827)

Air Afterglow and Thermal Radiation of Nitrogen
Peroxide, by V. N. Kondrat'yev, 8 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VII,
No 5, 1937, pp 645-649.

JPRS 7234

Sci - Phys

135,815

Dec 60

"Zhurn Eksper i Teoret Fiziki"
Vol 7, No. 6 (Jun '37) pp 696-713 (17 pages)

"The Formation of Electron Pairs
During Radioactive Decay"
B.V. Tisea

Proj. # 5480

{A-1273/1

AKO:
REC. 324

SR ⁴27 May '50.

(NY-4827)

Afterglow Spectrum During Discharge in Water
Vapor, by M. Ziskin, V. Kondrat'yev, 9 pp.

RUSSIAN, per, Zhur Eksper i teoret Fis, Vol VII,
No 8, 1937, pp 937-942.

JPRS 7235

Sci - Phys

135,817

Dec 60

V
On Plastic Deformation (of Rocksalt), by N. A.
Brilliantov, I. V. Obreimov.

RUSSIAN, no par, Zhur Ekaper i Teoret Fiz, Vol VII,
No 8, 1937, pp 978-985.

N.L.M. 2637

AEC Tr 601

16,431

Scientific - Physics

Oct 1951 CRB

Electron Gas in a Magnetic Field, by
Ye. M. Lifshits,
RUSSIAN, per, Zh. Eksper. Teor. Fiz., Vol VII,
1937, pp 390-400. P910195067
NASA TT F-479

Sci-Electr
Jul 67

332,869

(NY-4827)

The Quantum Sensitivity of the Spectrographic
Method of Recording Radiation, by V. N.
Kondrat'ev, 4 pp.

RUSSIAN, per, Zhur Kasper i Teoret Fiz, Vol VII,
No 12, 1937, pp 1380, 1381.

JPRS 7220

Sci - Phys

135,833

Rec 60

Sound Absorption in Solids, by G. L. Slonimskiy.

RUSSIAN, per, Zhur Eksper i Teoret Fiz. Vol VII,
No 12, 1937, pp 1457-1462.

Sci Mus Lib Tr 56/3993

SLP/T-3134

49,382

Sci - Physics
Jul 57

Navy 2100/NRL 711-

9-12-57

(NY 4827)

Limiting Principles of Freely-Rising Convective
Streams, by Ya. B. Zel'dovich, 6 pp.

RUSSIAN, per, Zhur Ekspert i Teoret Fiz, Vol VII,
No 12, 1937, pp 1463-1465.

JPRS 7217

Sci - Phys

Dec 60

135,835

(NY-4827)

Limiting Principles of Heat Transfer in an
Internal Problem at Low Velocities, 6 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VII,
No 12, 1937, pp 1466-1468.

JPRS 7230

Sci - Phys

Dec 60

135,816

2^d Et: Sec 73 Val 8, #1, pp 40-51 (1938)

Absorption on Sound in Strong Electrolysis
M. Leontovich

ACSIL 2 # 370
(Copy in files)

Vibrational Properties of an Electron Gas, by
A. A. Vlasov, 60 pp.

RUSSIAN, no per, Zhur Eksper i Teoret Fiz,
Vol VIII, No 3, 1938, pp 291-318.

AECT-2729
Sci Trans Center RT-3265

Sci - Physics

32,075

Investigation of a Directed Beam of High-Speed Electrons Through Mercury Vapors in a Heated-cathode Discharge Tube, by V. Polin, S. Gvozdover.

RUSSIAN, per, Zhurnal Eksperimental'noy i Teoreticheskoy Fiziki, Vol 8, No 4, 1938, pp 436-443. 9231703

NASA TT F-370

USSR
Sci/Electronics
Mar 66

297,196

Zh Eksper i Teoret Fiz

Vol 8, No 6, 1938

pp 717-723

On the ~~anis~~ Anisotropy of the Hall Effect in
Monocrystals of Zinc and ~~Sulfur~~ Cadmium.
by M. K. Noskov

Navy No. 13/ NRL Trans. No 242

Zhur. Eksper i Teoret Fiziki

Vol 8, 1938 pp 894-906

The Saattering of Slow Neutrons in a Crystalline
Lattice, by I. Pomeranchuk.

Trans AEC

Collisions of Deuterons With Nuclei, by E. Lifshits,
22 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VIII,
1938, pp 930-944.

AEC Tr 2868

Sci - Chem

47, 413

May 57

(SF-1053)

Displacement of the Curie Point With Pressure, by
O. I. Leypunskiy, 9 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol VIII,
No 3/9, 1938, pp 1026-1030.

JPRS 4059

Sci - Phys

Nov 60

131, 5-40

New Slip Planes in Zinc, by A. F. Kolesnikov, 50 pp.

RUSSIAN, per, Zhur Eksper i Teor Fiz, Vol VIII,
No 8-9, 1938.

CIA/FDD XX-1651
NO FOREIGN DISSEM

Sci
Jan 65
USIB Internal Use Only

271,450

(FDD 26413)

Diffraction of Molecules, by D. Blokhintsev, 12 pp.

RUSSIAN, bi mo per, Zhur Eksper i Teoriz Fiz
Vol VIII, No 12, Moscow 1938, pp 1249-1254.

CIA/FDD/U-7773

USSR
Sci - Physics

31,917

Krasnikov, A. I.

FLUORESCENCE OF AIR AND OF METALS
(O Flyuorestsentsii Vozdukha i Metallov). [1962] [21]p.
(foreign text included) 9 refs.
Order from OTS or SLA \$2.60

62-16098

Trans. of Zhurnal Eksperimental'noi i Teoreticheskoi
Fiziki (USSR) 1938, v. 8, [no. 12] p. 1285-1291.

DESCRIPTORS: Fluorescence, Air, Metals, X-Rays,
X-ray photography

(Unannounced)

62-16098

I. Krasnikov, A. I.

Office of Technical Services

Vadilo, P.

THE EFFECT OF TEMPERATURE OF THE SOLUTION ON THE SHAPE OF GROWING CRYSTALS AND THE CAUSE OF FORMATION OF NEEDLE-SHAPED CRYSTALS. [1963] 9p. 2 refs. Order from OTS or SLA \$1.10

63-14605

Trans. of [Zhurnal Eksperimental'noi i Teoreticheskoi Fizika] (USSR) 1938, v. 8, p. 1381-1383.

DESCRIPTORS: *Crystal growth, Temperature, Solutions, *Crystals.

(Physics--Solid State, TT, v. 10, no. 7)

63-14605

I. Vadilo, P.

Office of Technical Services

Zh Ek i Teoret Fiz Vol 9, page 72-5 (1939)

Heat Capacity of Ammonium Iodide Under Pressure.
by S. A. Zlunitsyn.

AEC Trans (avail. Brookhaven)

Electron Drift in Plasma, by Kh. M. Fataliyev.
G. V. Spivak, et al.
RUSSIAN, per, Zhurnal Eksperimental'noy i
Teoreticheskoy Fiziki, Vol 9, No 2, 1939,
pp 167-175. 9231708
NASA TT F-371

USSR
Sci/Electronics
Mar 66

297,197

Calculation of the Surface Energy and the Twinning
Energy of Calcite, by F. Kaner, 11 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol IX, No 2,
1939, pp 218-222.

SLA 59-10504

Sci - Phys
Sep 59
Vol 2, No 1

97,789

On the Absorption of X-Rays by Metals, by A. I.
Kostarev, 32 pp.

RUSSIAN, per, Zhurn Eksper i Teoret Fiz, Vol II,
No 3, 1939, pp 267-279.

SLA 59-10972

Sci - Physics
Sep 59
Vol II, No 2

98,693

The Theory of the Equation of State, by S. N.
Teachenko.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, ^V Vol IX,
No 5, 1939, pp 578-585.

ATS RJ-1729
ATS 80K22R

Sci - *Alp*
Jul 59

90,460

Theory of Current in Vacuum. I. The Case of
Plane Parallel Electrodes, by S. V. Beliyustin.

RUSSIAN, per, Zhur Ekspri i Teoret Fiz, Vol IX,
1939, pp 742-759.

ABC Tr 3650

Sci p Phys

Sep 59

97,808

14 795

At-1

FATALIEV L.

Influence of a weak magnetic field on a plasma

Einfluss eines schwachen Magnetfeldes auf das Plasma

Zhur. Eksptl'. i Teoret. Fiz., 9, No. 7, 813-823 (1939)

Ph, 1960/61, No. 142 - German

E u r a t o m

Theory of Current in a Vacuum, III. Case of Spherical
Electrodes, by S. V. Beliyustin, 12 pp.

RUSSIAN, per, Zhur Ekspri i Teoret Fiz, Vol IX, 1939,
pp 857-863.

AEC Tr

3762

Sci - Phys

Oct 59

98,899

The Shape of a Mechanical Twin and ⁱthe Causes
Determining It, by M. V. Yakutovich and E. S.
Yakovleva, 10 pp.

RUSSIAN, Zhur Eksper I Teoret, ^{Fig} Vol 9, No 7,
pp 884-888.

Sci Museum Lib No 51/3273 -London

NLL M.2632

Sci-Physics

AEPE Tr 11/3/5/12/2

On the Criterion for Single Scattering of Fast
Electrons, by L. Artsinovich,

RUSSIAN, no per, Zhur Eksper i Teoret Fiz, No 9,
1939, p 927.

AEC Tr 581

Scientific - Nuclear Physics

Sep 51 CTS

14,545

Pines, B. J.

THERMODYNAMICS OF THE PHASE TRANSITIONS
OF THE SECOND ORDER. [1962] 12p. 4 refs.
Order from OTS or SLA \$1.60 62-18690

Trans. of [Zhurnal Eksperimental'noi i Teoreticheskoi
Fiziki] (USSR) 1939, v. 9, no. 8, p. 963[-968].

DESCRIPTORS: *Phase transitions, *Thermodynamics,
Phase studies, *Equations of state, Differential equa-
tions, Temperature, Pressure, Entropy, Volume.

Transitions of the second order are considered as
taking place in a finite interval of temperature and
pressure resulting in a finite change in entropy and
volume. Validity of the Ehrenfest's equation along the
whole transition path has been demonstrated (for the
increase in the values of heat capacity and coefficients
of expansion and compressibility connected with the
(Physics--Thermodynamics, TT, v. 9, no. 10) (over)

62-18690

I. Pines, B. J.

Office of Technical Services

Sena, L. A.

METHODEN DER MESSUNG DER EFFEKTIVEN
QUERSCHNITTE DER WECHSELWIRKUNG
ZWISCHEN IONEN UND ATOMEN IM GAS (Methods
of Measuring the Effective Cross Sections of the
Interaction between Ions and Atoms in Gases). 14p.
Order from TIB \$2.35

Trans. in German of Zhurnal Eksperimental'noi i
Teoreticheskoi Fiziki (USSR) 1939 [v. 9] no. 9,
p. 1061-1068.

DESCRIPTORS: Measurement, *Ions, *Atoms,
Gases, *Proton cross sections.

(Nuclear Physics and Nuclear Chemistry, TT, v. 9,
no. 11)

62-27305

- I. Sena, L. A.
- II. Technische Informations-
bibliothek, Hannover
(West Germany)

Office of Technical Services

Rudenko, N. S.
VISCOSITY OF LIQUID O₂, N₂, CH₄, C₂H₄ AND AIR,
tr. by Donald C. Rich. 17 Aug 62 [10]p. 9 refs.
[AMC] (Redstone) Trans-nr 32-62.
Order from OTS or SLA \$1.10

62-32586

Trans. of Zhurnal Eksperimental'noi i Teoreticheskoi
Fiziki (USSR) 1939, v. 9, no. 9, p. 1078-1080.

DESCRIPTORS: *Liquefied gases, *Oxygen, *Nitrogen,
*Methanes, *Ethylene, Air, Viscosity, Oscillation,
Measurement, Low temperature research.

Values of the viscosity of pure O₂, N₂, CH₄, C₂H₄
and air were measured in a wide interval of tempera-
tures--from the boiling point under normal pressure
up to a temperature which is close to critical. The
method of measuring is based on observation of the
damping of torsional oscillations of a cylinder, sus-
(Mechanics--Hydrodynamics, TT, v. 9, no. 8) (over)

62-32586

I. Rudenko, N. S.
II. AMC (Redstone)
Trans-32-62
III. Army Missile Command,
Redstone Arsenal, Ala.

Office of Technical Services

Bresler, S. E. and Frenkel, Ya. I.
CHARACTER OF THERMAL MOTION OF LONG
ORGANIC CHAINS WITH REFERENCE TO THE
ELASTIC PROPERTIES OF RUBBER. [1961] [6p] 6 refs.
Order from CTS, SLA, or ETC \$1.10 TT-61-16972

Trans. of Zhurnal Eksperimental'noi i Teoreticheskoi
Fiziki (USSR) 1939, v. 9, p. 1094-1106.

(Materials--Rubber, TT, v. 12, no. 4)

TT-61-16972

I. Bresler, S. E.
II. Frenkel, Ya. I.

Office of Technical Services

The Effect of the Magnetic Field Upon the Electrical Resistance of Single Crystals of Zinc and Cadmium at Low Temperatures. Part II, by B. G. Lazarev, N. M. Nakhimovich, E. A. Parfenova, 6 pp. UNCLASSIFIED

Full translation.

RUSSIAN, bimo per, ~~Zhur Ekspoz 1 Teoret~~, Vbl IX, No 10, USSR, 1939, pp 1162-1167.

Navy Tr 666/NRL 403

Scientific - Physics, Zinc, Cadmium

Sep 52 CIS/DEX

Ion-Atom Interaction in Gase, by L. A. Sena.

RUSSIAN, per, Zhur Eksperimental'noi
Theoret Fiz, vol IX, No 11, 1939, pp 1320-1331.

~~9204979~~

AEC-Tr-5615

Sci - Phys

Apr 63

227,050

On the Thermal Theory of Cathode Sputtering, by
S. V. Izmajlov, 6 pp.

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RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol 9 (12),
1939, pp 1469-1472

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Sci Museum Lib No ~~XXXX~~ 51/2646 - London

T 3998

P 22 212T

ending Area - Dec 51

Thermal Theory of Electron XE Emission under the Impact of
Fast Ions, by S. V. Ismailov.

RUSSIAN, no per, Zhur Eksper i Teoret Fis, ^{no} Vol IX, 1939,
pp 1473 - 1483.

AEC Tr 1090

Sci - Nuclear Physics

Dec 51 CTS

On the Problem Concerning the Nature of Cathode
Diffusion and Kinetic Emission of Secondary
Electrons, by N. D. Morgulis, 24 pp.

RUSSIAN, no per, Zhur Eksper i Teoret Fiz, Vol IX,
No 12, 1939, pp 1484-1494.

ATIC F-TS-8321

Scientific - Physics
ATIC 172519
CIA 2522255

15,123
Jun 54 CTS/DSK

Agency: Pictinny Arsenal
P.O.: Req. 123-70

R-11703-D
1 June 1970

Title: Absorption Spectra & Photochemical Decomposition
of Nitrobenzene Vapors. pp. 1527 to 1529.

Author: Shalagova, O.M.

Source: J. Exptl. Theoret. Phys. U.S.S.R. (JETP Letters)
Vol. 9. (1959). 3pp

Language: Russian.

Special Instruction: Please translate & type 1 copy only

Zal'dovich Ya.

Zal'dovich, Ya.

THEORY OF IGNITION BY A HOT SURFACE (Teoriya Zazhiganiya Nakalennoi Poverkhnost'yu). [1962] [11]p. (foreign text included) 3 refs.
Order from OTS or SLA \$1.60

63-10878

Trans. of Zhurnal Eksperimental'noi i Teoreticheskoi Fiziki (USSR) 1939, v. 9, no. 12, p. 1530-1534.

DESCRIPTORS: *Ignition, Gases, Surface temperature, *Autoignition, *Thermal conductivity, *Partial differential equations, Numerical analysis.

(Physics--Thermodynamics, TT, v. 10, no. 5)

63-10878

I. Zal'dovich, Ya.

CIA/FDD X-2100

Office of Technical Services

Zh Ek i Teoret Fiz · Vol 10, page 29-36 (1940)

The chain decomposition of uranium by slow neutrons.
by Ya. B. Zel'dovich and Yu. B. Khariton.

AEC Trans (avail Brookhaven)

The Thermal and Electrical Conductivity of
Alkali Metals in the Liquid and Solid States, by
P. A. Khalilev, 41 pp.

RUSSIAN, per, Zhur Ekaper i ~~Teoret~~ Fiz, Vol X,
No 1, 1940, pp 40-57.

Sci Trans Center
RT 2173

Scientific - Physics

Jan 55 CTS/DEK

20,992

Zh Ek i Teoret Fiz Vol 10, page 477-82 (1940)

Kinetics of chain decomposition of uranium.
by Ya. B. Zel'dovich and Yu. B. Khariton.

AEC Trans(avail Brookhaven)

RT-963

(NY-4822)

Application of Propagation Theory of an Arbitrary
Discontinuity to Certain Cases of Gas Ignition,
by Ya. B. Zel'dovich, K. I. Shchelkin, 17 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol X, No 5,
1940, pp 569-575.

JPRS 5508

Sci - Phys

134, #19

Dec 60

Zhurnal Eksperimentalnoi i Teoreticheskoi Fiziki vol 10
(May 1940) #5 (576-580 pp)

"Science Chronicle: Leningrad Physico-Technical Inst of
the Acad Sci USSR"

by M.S.Sominskiy

Russian - A - 2554.1

Proj.. 9.152

~~SECRET~~

SR 6/6/51

TD-date: 6 Jun '51

U-report

Nowinska deliv June 1
(10-page translation
checked by WK)

Quantum Theory of the Radiation of Light of
an Electron with Uniform Motion in a Medium,
by V. L. Ginzburg, 32pp
RUSSIAN, per, Zhurnal Eksperimental'noi i
Teoreticheskoi Fiz, Vol 10, 1940, No 6,
pp 589-600
SLA TT-64-16955

Sci - Phy
May 67

326,525

On the Theory of Diffusion in Solid Bodies,
by G. P. Il'kevich,
RUSSIAN, per, Zhur. Eksperim. i Teor. Fiz.
no. 10, 1940, pp. 659-665
*CFSTI TT 70-57024

Sci/-phys
Feb 70

Incomplete Separation of Variables for Bivalent
Atoms, by V. A. Fok, M. G. Veselov, M. I. Petrashen',
23 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol X, 1940,
pp 723-739.

AEC Tr 4010

118,749

Sci - Phys
Jun 60

Effect of Surface Roughness of a Tube on the
Origination and Propagation of Detonations in Gases,
by K. I. Shebelkin, 10 pp. UNCLASSIFIED

RUSSIAN, no per, Zhur Eksp^{er} i Teoret Fiz, Vol X,
No 7, 1940, pp 822-827.

ATIC F-TS-8322

Scientific - Physics
ATIC 173725
CIA 2523258

15,120

Twinning of Sodium Nitrate by Plastic Deformation, by
R. I. Garber, 2 pp. UNCLASSIFIED.

Eksp i Teor 1940,
RUSSIAN, per, Zhur ~~Eksp i Teor~~ Fiz, Vol X, No 7, pp
828, 829, Encl to MA London, Ser. 442-S-54.

A.S.R.E. Tr 11/3/5/121/4

Scientific - Physics

19,283

(NY-4822)

Theory of Nuclear Breakup, by Ya. B. Zel'dovich,
M Yu. A. Zysin, 11 pp.

RUSSIAN, per, Zhur Ekspe: i Teoret Fiz, Vol I,
No 8, 1940, pp 831-834.

JFRB 5509

Sci - Nu Phys

Dec 60

134,420

Photochemical Oxidation of Carbon Disulfide Vapors,
[UNCLASSIFIED,] V. Kondrat'ev, A. Yakovleva.]

SECRET
RUSSIAN, per, Zhur Ek 1 Tek Fiz, No 10, 1940,
pp 1038-1042.

Assoc Tech Ser, BJ-74
Price: \$11.60 (\$1.60)

Scientific - Chemistry

17,850

61-23306

Zeldovich, [Ya.] B. and Semenov, N. N.
 KINETICS OF CHEMICAL REACTIONS IN FLAMES:
 THE THEORY OF FLAME PROPAGATION. I. [AND]
 RATIONAL FORMULAE FOR THE DEPENDENCE OF
 THE FLAME VELOCITY ON THE PARAMETERS. II
 (Kinetika Khimicheskikh Reaktsii v Plamenakh).
 Aug 47 [31]p. 38 refs. BISI-318; [DSIR LLU] M.2773.
 Order from OTS or SLA \$3.60 61-23306

Trans. of [Zhurnal Eksperimental'noi i Teoreticheskoi
 Fiziki] (USSR) 1940 [v. 10] no. 9/10, p. 1116-1136.
 Another translation of pt. I is available from SLA as
 RT-402.

DESCRIPTORS: *Reaction kinetics, Chemical reactions,
 Flames, *Flame propagation, Propagation, Mathemati-
 cal analysis.

A theory of flame propagation is developed and the be-
 haviour of the chain processes taking place in the
 flames is investigated. The basis of the method of
 (Chemistry--Physical, TT, v. 6, no. 6) (over)

I. Zeldovich, Ya. B.
 II. Semenov, N. N.
 III. Title: Theory ...
 IV. Title: Rational ...
 V. BISI-318
 VI. DSIR LLU M.2773
 VII. British Iron and Steel
 Industry Translation
 Service

Sci RT402
 CIA D 472436
 176650

Office of Technical Services

The Cold-Brittleness of Steel in Torsion, by F. F.
Vitman, N. N. Davidenkov, N. A. Zlatin, 12 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol X,
No 9/10, 1940, pp 1137-1145.

SLA 59-10815

Sci - Minerals/Metals

Sep 59

Vol II, No 2

98,661

The Dependence of the Critical Shear Stress for
Twinning and Slip in Crystals of Cadmium on the
~~Specimen~~ Specimen Diameter, by E. S. Yakovleva,
M. V. Yakutovich, 7 pp.

RUSSIAN, no per, Zhur Eksper i Teoret Fiz,
Vol X, 1940, pp 1146-1150.

AEC Tr 2264

28,458

Scientific ~~Abstracts~~ Physics
Nov 55 CTS/DEX

Formation of Negative Ions of Halide During
Reaction of Alkali-Halides With Surfaces of
Glowing Tungsten, by V. M. Dukel'skiy,
N. I. Ionov.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol X,
1940, pp 1248-1256.

SLA 63-14464

Sci - Chem, Phys
6 Feb 63

Concerning Genesis of Centers of Crystallization
in Supercooled Liquids. II. Crystallization of
Organic Substances in Ultrasound Field, by V. I.
Danilov, B. M. Teverovskiy, 11 pp.

RUSSIAN, per, Zhurn. Eksper i Teoret Fiz, Vol X,
No 11, 1940, pp 1305-1310.

S.L.A. Tr No R-317

Sci - Chemistry
Apr 57

46, 841

(NY-4822)

One Property of Contacts, by Ya. B. Zel'dovich,
Yu. B. Khariton, 5 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol X,
No 12, 1940, pp 1422, 1423.

JPRS 5511

Sci - Phys

134, H26

Dec 60

The Nature of Ball Lighting, by Ya. I.
Frenkel, 3 pp.

RUSSIAN, per, ~~Zhur Ekeper~~ i Teoret Fiz,
Vol X, 1940, pp 1424-1426.

CIA/FDD/Z-214

Sci - Physics

32,182

The Kinetics of Chemical Reactions in Flames III.
The Mechanism of CO Combustion, 19 pp. by Ya. B.
Zel'dovich and N N Semenov

ZHVR E-T-112

RR RUSSIAN, per, J. Exptl and Theoret. Phys, 10,
1427-40, 1942 (1940)

Avail Armed Services Tech
Info Agency as ATI 83148

1541

Scientific - Physics

(NY 4822)

The Kinetics of Formation of Two-Phase Systems Near
the Critical Point, by Ya. B. Zel'dovich, O. M.
Todes, 12 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol X,
No 12, 1940, pp 1441-1445.

JPRS 5510

Sci - Phys

134,427

Dec 60

Theory of the Fine Structure of Absorption Lines of
X-Ray Spectra of Solids, by A. I. Kostarev, 31 pp.

RUSSIAN, per, Zhur Eksperimental i Teoret Fiz,
Vol XI, No 1, 1941, pp 60-73.

SLA 59-10972

Sci
Nov 59
Vol 2, No 3

101,526

Measurement of the Capacity of Sulphide Rectifiers, by
Yu. A. Dunaev, and V. M. Tuchkevich, 4 pp.

RUSSIAN, per, Zhur Ekaper i Teoret Fiz, Vol 11, ¹¹⁰(1),
1941, pp 89-92.

~~SECRET~~

Sci. Museum Lib No 51/5643 - London

11/2/41-47 11/24/1941

Class

(a) 11/2

See Jc Cont RT 480

(EF-1046)

Kinetics of Surface Chemical Reactions I: Reaction
Propagation From a Plane Surface, by O. M. Todes,
R. I. Bogutskiy, 14 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XI,
No 1, 1941, pp 133-140.

JPRS 4197

Sci - Phys

134,424

Dec 60

A Theory of the Limit of Slow Flame Propagation,
17 pp by Ya. B. Zel'dovich

21.7.57-712
RUSSIAN, per, J. Emtl and Theoret. Phys. 11,
159-169 (1941) *Theoret. Phys. 11,*

Avail Armed Services Tech
Info Agency as Ati 83148

21.7.57-712

NLL M.3142

1542

Scientific - Physics

Calculation of the Velocity of Detonation in
Gases, by Ya. B. Zeldovich, S. B. Ratner.

UNCLASSIFIED

RUSSIAN, no per, Zhur Eksper i Teoret Fiz, Vol XI,
No 1, 1941, pp 170-183.

ATIC F-TS-8312

Scientific - Physics
ATI 83148

13,498

Thermal Conduction of Paramagnetic Dielectrics
at Low Temperatures, by I. Pomeranchuk, 38 pp.

RUSSIAN, per, Zhur Kasper i Teoret Fiz, Vol XI,
1941, pp 226-245.

AEC UCRL-Trans-565

Sci - Phys
Apr 61

149,016

Nature of Cathode Diffusion and the Kinetic
Emission of Secondary Electrodes, Part II,
by N. D. Morgusis, UNCLASSIFIED

RUSSIAN, per, Zhur Eksper i Teoret Fiz,
Vol XI, No 2, 1941, pp 300-302.

ATIC F-TS-8368

19,315

Scientific - Physics

Zhur Eksper i Teoret Fiz Vol 11 615-19 1941

Spectra and energies of the photon-neutrons of (Ra, Th, Be) and (Ra, Be), by T. A. Golobordko

AECtr 494 at BNL 29 June 1941

(NY-4833)

Kinetics of Topochemical Reactions II. Propagation
of the Reactions in a Spherical Particle, by O. M.
Todes, R. I. Bozunskiy, 20 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XII,
No 1/2, 1942, pp 79-89.

JPRS 7176

EE Sci - Phys

135,823

Dec 60

Visual Measurements of Fluctuations of Quanta, I.
Comparison of the Visual Threshold with Data of
Fluctuation Measurements, by E. N. Brumberg, et
al.

RUSSIAN, per, Zh. Eksp. i Teor. Fiz., Vol 12,
1942, pp 93-116.
NLL 5828.4F (11850)

Sci - Phys

Aug. 67

Sept.

338,652

Zhur Eksper i Teoret Fiziki

Vol 12, 1942 pp 342-348

A Spectroscopic Study of Ions in the Positive
Column of the Glow Discharge,
by Yu. M. Kagan and S. E. Frish.

AEC Trans

Pressure and Velocity Distribution in Explosives,
Especially During Spherical Propagation of the
Detonation Wave, by Ya. B. Zeldovich.
UNCLASSIFIED

RUSSIAN, per, Zhur ^K ~~Esper~~ i Teoret Fiz, Vol XII,
No 9, 1942, pp 389-406.

ATIC F-TS-8314

Scientific - Physics



13,500

Effect of Thin Films on the Magneto-Optical Kerr
Effect, by Ya. I. Frenkel. UNCL

RUSSIAN, per, Zhur Ekspert i Teoret Fiz, Vol XII,
No 10, 1942, pp 467-472.

DSIR LIJ M.1397

(loan)

Sci - Phys
May 60

116,505

zhur Ekspoz. v Serb. Fizik Vol 12, No. 10 1972
pp. 479-480

The nature of the chaotic rings of Saturn
Radwin - G. N. Flerov

Proj. #9623

CS-A.2757.1

SR 14 Aug 61

(NY-4833)

Combustion Theory of Gun Powder and Explosives, by
Ya. B. Zel'dovich, 46 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, No 11/12,
1942, pp 498-524.

JPRS 7436

Sci - Chem

Jan 61

138,720

(NY-4833)

Theory of Formation of a New Phase - Cavitation, by
Ya. B. Zel'dovich, 41 pp.

RUSSIAN, per, Zhur Ekaper i Teoret Fiz, Vol XII,
No 11/12, 1942, pp 525-538.

JPRS 7366

Sci - Phys

Feb 61

138,689

The Theory of the Influence of Concentration on the
Fluorescence of Solutions, by S. I. Vavilov, 34 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XIII,
1943, pp 13-32.

AEC Tr 3185

Sci - Phys

May 58

62,655

Diffusion of Hydrogen in Quartz, / 9 pp.

by Kondratyev,

RUSSIAN, per, Zhur Ek i Teoret Fiz, Vol XIII,
~~Mar 195~~ 1943, pp 59-64.

RT - 3130

AEC Tr 2182

26,536

Aug 55 CTS

Scientific - Physics, Chemistry

Determination of Modes of Vibration of Polyatomic
Molecules from their Symmetry Properties, by
M. A. El'yashevich, 25 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XIII,
No 3-4, 1943, pp 65-84.

Sci Tr Center
RT-1428

Scientific - Physics

18,935

Background in Measurements of Relative Intensities
of Spectral Lines, by Yu. M. Tolmachev, 14 pp.
UNCLASSIFIED

RUSSIAN, per, Zhur Eksper i Teoretz Fiz, Vol XIII,
No 3-4, 1943n, 93-100.

Sci Tr Center
RT 1014

Scientific - Physics

15,375

Measurement of the Shear Modulus of Solid and
Liquid Bodies, by M. Kornfeld, 10 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fiz, Vol XIII,
1943, pp 116-120

SLA 59-10778

Sci - Physics
Sep 59
Vol. II, No 2

98,654

Sobolev

RUSSIAN, per, Zh. Eks. i Teor. Fiz. Vol. XIII, 1943,
pp. 131-136.

*PL 480
OTS 61-11437

Dec 61

S-178/60

(NY-4831)

Obtaining of Record-High Temperatures, by
Ya. B. Zel'dovich, O. I. Leypunskiy, 5 pp.

RUSSIAN, per, Zhur Eksper i Teoret Fis, Vol XIII,
No 5, 1943, pp 181, 182.

JPRS 5823

Sci - Chem

Oct 60

129,083

Supplements to the Theory of Current in a Vacuum,
III. Case of Spherical Electrodes, by B. V.
Bollyustin, 9 pp.

RUESJAN, per, Zhur Ekspar i Teoret Fiz, Vol. XIII,
1943, pp 238-242.

AEC Tr

3762

Sci - Phys

Oct 59

98,900

178/60

(~~27~~-1042)

The Relationship Between the Liquid and Gaseous States in Metals, by Ya. Zel'dovich, L. Landau, 5 pp.

RUSSIAN, per, Zhur Ekaper i Teoret. Fiz, Vol XIV, No 1/2, 1944, pp 32-34.

SLA 60-31376

JPRS 4058

158, 4/2/6